



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

SCIENTIFIC BOOKS

TOPOGRAPHY AND STRATEGY IN THE WAR

By DOUGLAS WILSON JOHNSON, *Associate Professor of Physiography, Columbia University.*

This book treats the relationship between inanimate nature and the science of war and gives a picture of the different war fronts in order that the military campaigns of the war may be followed with greater ease. 211 pages. \$1.75 net.

Henry Holt & Co., New York

GENERAL ZOOLOGY

By A. S. PEARSE, *Associate Professor in the University of Wisconsin.*

This book has been written to be read by students of eighteen to twenty years of age. With this idea in view both the illustrations and text have been prepared more in the style of a natural history than of an anatomy. 366 pages.

Henry Holt & Co., New York

HISTORY OF MEDICINE

By FIELDING H. GARRISON, *Principal Assistant Librarian, Surgeon General's Office, Washington, D. C.*

This volume has been written with a definite intention of stimulating the student to do his own thinking and research, by interesting him in the subject from the start. 905 pages. Cloth \$6.50 net.

W. B. Saunders Co., Philadelphia, Pa.

THE ANIMAL MIND

A Text-book of Comparative Psychology

By MARGARET FLOY WASHBURN, Ph.D., *Professor of Psychology, Vassar College.*

The facts set forth in this book are very largely the results of the experimental method in comparative psychology. In the second edition the author has included every newly discovered fact of first importance. New edition, cloth 12mo. 275 pages.

The Macmillan Co., New York

A SHORT HISTORY OF SCIENCE

By W. T. SEDGWICK and H. W. TYLER of the *Massachusetts Institute of Technology.*

This volume seeks to furnish the student and the general reader with a concise account of the origin of our scientific knowledge and scientific methods. 474 pages. Price \$2.50 net.

The Macmillan Co., New York

EVERYMAN'S CHEMISTRY

By ELLWOOD HENDRICK, New York City.

This book aims to give to the average man a general realization of the tremendous importance of chemistry and its application in actual life. 373 pages.

Harper & Brothers, New York

METEORITES

Their Structure, Composition and Terrestrial Relations

By OLIVER CUMMINGS FARRINGTON, Ph.D., *Curator of Geology, Field Museum of Natural History, Chicago.*

"This volume will at once interest the intelligent amateur and be of value also to the trained specialist." *American Journal of Science.* Pp. x + 233; 65 illustrations. Price \$2. Postage extra, 2 lb. rate.

Colonial Press, 1510 East 56th Street, Chicago, Ill.

A BRIEF ACCOUNT OF RADIO-ACTIVITY

By FRANCIS P. VENABLE, Ph.D., D.Sc., LL.D., *Professor of Chemistry, University of North Carolina.*

The object of this treatise is to give a simple account of the development of our knowledge of radio-activity and its bearing on chemical and physical science. Pp. vi + 52.

D. C. Heath & Company, Boston, New York, Chicago

THE ELECTRON, ITS ISOLATION AND MEASUREMENT AND THE DETERMINATION OF SOME OF ITS PROPERTIES

By ROBERT ANDREW MILLIKAN, *Professor of Physics in the University of Chicago.*

The purpose of this volume is to present the evidence for the atomic structure of electricity to describe the most significant properties of the electron, and their bearing on the structure of the atom and the nature of electromagnetic radiation.

The University of Chicago Press

A HANDBOOK OF MEDICAL ENTOMOLOGY

By WM. A. RILEY, Ph.D., and O. A. JOHANNSEN, Ph.D., *Cornell University.*

A new and up-to-date account of poisonous and parasitic insects and their allies, especially those that transmit and disseminate disease. Illustrated. Keys for identification. Cloth, 350 pages. Price \$2.20 postpaid.

Send for circular

The Comstock Publishing Company, Ithaca, New York

ARBOREAL MAN

By F. WOOD JONES, M.B., D.Sc., *Professor of Anatomy in the University of London.*

An attempt to take stock of what is probable concerning the phylogenetic story of Man, in order to see if there is any stage in his evolution at which he or his remains might be labeled as human. Pp. x + 230. Price \$2.40 net.

Longmans, Green and Co., New York and London

THE UNCAUSED BEING AND THE CRITERION OF TRUTH

By E. Z. DERR, M.D.

A profoundly philosophical work.—*San Francisco Argonaut.* Of a highly philosophical character. The author reveals the weak points in Pantheism and Polytheism as these systems find expression in modern writings.—*Springfield Republican.* \$1.00 net.

Sherman, French & Company, Publishers, Boston

THE NATURE OF MATTER AND ELECTRICITY

An Outline of Modern Views

By DANIEL F. COMSTOCK, S.B., Ph.D., *Massachusetts Institute of Technology,* and LEONARD T. TROLAND, S.B., A.M., Ph.D.

This book attempts to give in broad schematic form the conception of the structure of the material universe, which has developed in the minds of modern students of physical science. Pp. xxii + 194 and 32 illustrations. Price \$2.00.

D. Van Nostrand Company, New York

Method of sizing the pipes for low pressure steam heating based upon the loss of pressure per lineal foot. Four large tables and a few small ones. 4½ x 6½; 47 pp.; \$2.00 postpaid.

Losses of pressure per lineal foot for different coefficients of friction. 1 table, 50 cents postpaid.

I. Chaimovitsch, M.E., LL.B.

P. O. Box 298.

Chicago

A Handbook of American Private Schools

The 2nd Edition revised and enlarged of the **Handbook of the Best Private Schools.**

Among the new features are a **Complete List of Private Secondary Schools**; new **Educational Directories**; a **List of Secondary School Periodicals.**

New Introductory Chapters, — **Measuring Educational Results, the Year in Education**; **Review of Recent Educational Literature, etc.,** by Prof. Arthur O. Norton of Wellesley College, Prof. Clayton C. Kohl of New York University and others.

640 pages, round corners, crimson cloth, gold stamped, \$2.50

A Handbook of New England

Descriptive of Town and Country along the Routes of Automobile Travel, with Introductory Chapters.

768 pages, round corners, crimson silk cloth, gold stamped, \$2.50

PORTER E. SARGENT

50 Congress St., Boston, Mass.

Archives of Psychology

- No. 27. A Statistical Study of Eminent Women. Cora Sutton Castle. Pp. 90. 80 cents; cloth, \$1.05.
- No. 28. The Mental Capacity of the American Negro. Marion J. Mayo. Pp. 70. 60 cents; cloth, 85 cents.
- No. 29. Experimental Studies in Judgment. H. L. Hollingworth. Pp. 119. \$1.25; cloth, \$1.50.
- No. 30. The Psychological Researches of James McKeen Cattell; A Review by Some of his Pupils. Pp. 101. \$1.00; cloth, \$1.25.
- No. 31. Fatigue and Its Effect upon Control. Isaac Emory Ash. Pp. 61. 60 cents; cloth, 85 cents.
- No. 32. The Transfer Effects of Practice in Cancellation Tests. Melvin Albert Martin. Pp. 68. 60 cents; cloth 85 cents.
- No. 33. The Intellectual Status of Children Who are Public Charges. J. L. Stenquist, E. L. Thorndike and M. R. Trabue. Pp. 52. 50 cents; cloth, 75 cents.
- No. 34. The Relation of Quickness of Learning to Retentiveness. Darwin Oliver Lyon. Pp. 58. 50 cents; cloth 75 cents.
- No. 35. The Overcoming of Distraction and Other Resistances. John J. B. Morgan. Pp. 78. 75 cents; cloth, \$1.

THE SCIENCE PRESS

LANCASTER, PA.

SUB-STATION 84: NEW YORK

SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE

FRIDAY, JANUARY 4, 1918

The American Association for the Advancement of Science:
Some Economic Aspects of the World War, President Charles R. Van Hise.

The Nomenclature used in Colloid Chemistry, Professor Arthur W. Thomas.

Address at the Funeral of Joseph Young Bergen, Professor Edwin H. Hall.

Scientific Events:

The Medallists of the Royal Society; Report of the Year's Work at the U. S. Naval Observatory; The Enlistment in Engineer Reserve Corps of Technical Students pending Completion of Studies.

Scientific Notes and News.

University and Educational News.

Discussion and Correspondence:

A Suggestion for Staining Technique, Dr. Paul Ashley West; The Preparation of Skeletons by Bacterial Digestion, Ralph G. Hurin; Shall the Use of the Astronomical Day be discontinued?, Dr. W. S. Eichelberger.

Scientific Books:

Gage's The Microscope, Professor M. F. Guyer; Vogt's Introduction to Rural Sociology, Professor Warren S. Thompson.

Special Articles:

A Wet Condenser suitable for Continuous High Potential Service, E. Karrer and H. S. Newcomer.

The Boston Meeting of the American Chemical Society.

Annual Subscription \$5.00.

FRIDAY, JANUARY 11, 1918

The American Association for the Advancement of Science:
Some Economic Aspects of the World War, President Charles R. Van Hise.

Scientific Events:

Amos Peaslee Brown; Work of the National Advisory Committee for Aeronautics; New England Intercollegiate Geological Excursion; Medical Work of the University of Cincinnati; Destruction by Fire of Scientific Laboratories.

Scientific Notes and News.

University and Educational News.

Discussion and Correspondence:

Geologic Dates in Physiographic Descriptions, Professor John L. Rich; Removing Insects from Greenhouse Plants, Paul Emerson and J. B. S. Norton.

Scientific Books:

Millikan on the Electron, H. A. W.; Minerals of Japan, Dr. Geo. F. Kunz.

Special Articles:

The Geometrical Mean as a B. Coli Index, William Firth Wells.

The American Association for the Advancement of Science:

The Pittsburgh Meeting, Dr. L. O. Howard.

Single Numbers 15 cents.

Published every Friday by

THE SCIENCE PRESS

LANCASTER, PA.

GARRISON, NEW YORK.

Sub-Station 84: New York

SCHOOL AND SOCIETY

A weekly journal covering the field of education in relation to the problems of American democracy

Edited by J. McKEEN CATTELL

SATURDAY, DECEMBER 22, 1917

Critical Present-day Issues in Administration of State and Higher Education, B. R. Buckingham.

The Functions and Organization of a Bureau of Information and Investigation for the Department of Education in New York City, Benjamin C. Gruenberg.

Educational Events:

Charges against New York City Teachers; Reports of the National Child-labor Committee; Federal Grants under the Vocational Education Act.

Educational Notes and News.

Discussion and Correspondence:

The Administration of the Smith-Hughes Act, Arland D. Weeks; The Schoolmaster in Belgium, Roy Temple House.

Quotations:

The Health of the School Child.

Resolution of the Massachusetts Teachers.

Educational Research and Statistics:

Recitation as a Factor in Memorizing, Arthur I. Gates.

Societies and Meetings:

The Section of Education of the American Association for the Advancement of Science.

SATURDAY, DECEMBER 29, 1917

The War and Secondary Schools, Robert J. Alely.

A Possible Core for a Program in Agricultural Education, Theodore H. Eaton.

Educational Events:

Emergency Courses in Horticulture; College Students and the War; Military Training in the Schools; Federal Grants to States for Vocational Education.

Educational Notes and News.

Discussion and Correspondence:

The Inadequacy of Arguments against disciplinary Values, Charles N. Moore.

Quotations:

Science in Examinations.

Books and Literature:

New Books in the Field of English, J. F. H.

Drop the Catch Words.

Educational Research and Statistics:

Evaluation of Merit in High-school Teachers, F. C. Land-sittel.

SATURDAY, JANUARY 5, 1918

Concerning Mental Discipline and Educational Reform, Percy E. Davidson.

A Glimpse at Early Colonial Algebra, David Eugene Smith.

Educational Events:

Teachers as Election Officers; The Seattle Schools; Further Federal Grants for Vocational Education; The Reorganization of English in the Secondary Schools; The University of Kentucky Survey.

Educational Notes and News.

Discussion and Correspondence:

Social Attitude in Schools: L. J. Eddy.

Quotations:

Salaries in Scotland.

The Recrudescence of Apprenticeship in Wisconsin, Paul H. Douglas.

School Medical Service in War Time, Frank A. Manny.

Educational Research and Statistics:

The Spelling Ability of University Students, G. C. Brandenburg.

Societies and Meetings:

The Morgan College Semicentennial, Wm. Anthony Aery.

SATURDAY, JANUARY 12, 1918

The Teaching of Elementary Zoology, C. F. Curtis Riley.

Women's Colleges in Great Britain, George Edwin MacLean.

Why not teach Pronunciation, J. W. Abernethy.

Educational Events:

Educational Bills in the British Parliament; The University of Cincinnati and Medical Work in the City; Athletic Badge Tests; The Evening Schools of New York City; The New York City Board of Education.

Educational Notes and News.

Discussion and Correspondence:

Academic Inbreeding, G. A. Miller; Mathematics in Secondary Schools, Charles N. Moore.

Quotations:

Moving Pictures and Child Welfare.

English Teachers who are Conscientious Objectors to War

Scientific Research and Statistics:

Mathematics as a Test of Mental Efficiency, Robert E. Moritz.

\$3.00 a Year

Published Weekly

10 Cents a Copy

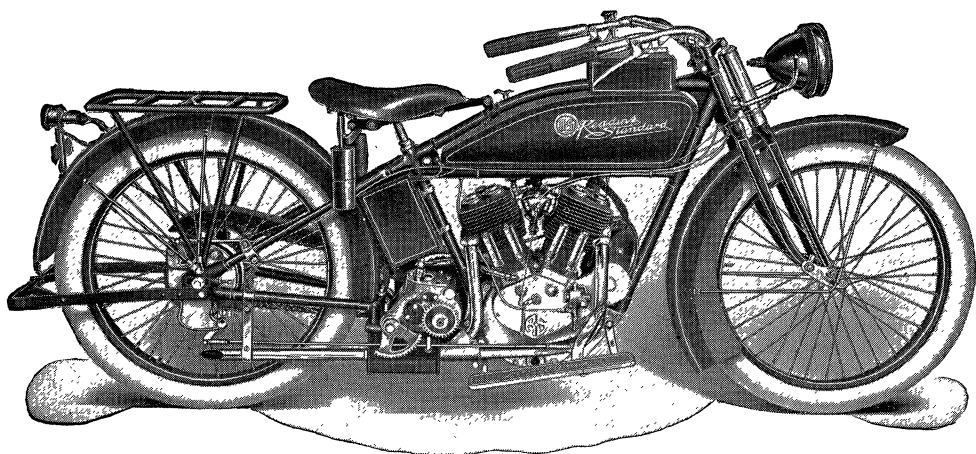
THE SCIENCE PRESS

Lancaster, Pa.

New York City: Sub-Station 84

Garrison, N. Y.

R-S The Original Mechanically Operated Side by Side Valve Motor



Time and again, during the past nine years we have demonstrated that the R-S Motor with its integral cams and gears of specially treated Vanadium Steel, its large cooling flanges, its long stroke, its mechanically operated Valves is the most reliable, flexible, powerful and durable Motor that stands the test of time. It triumphs over the worst road conditions and survives the most gruelling tests, yet remains fresh and sweet through it all—never taxed to its utmost, but always with plenty of power on which to draw.

We are the originators of the Mechanically Operated Side by Side Valve Motor and therefore eight years in advance of all others. The R-S is not an experiment at the expense of the rider.

With such a motor to start with is there any wonder that the other features of the R-S are in keeping with the recognized superiority of the R-S Motors.

Write for catalogue and dealer's proposition.

READING STANDARD COMPANY

511 Water Street

READING, PA.

The Scientific Monthly

Entered as second-class matter October 1, 1916, at the post-office of Lancaster, Pennsylvania,
under the Act of March 3, 1879

CONTENTS OF THE DECEMBER NUMBER

A Photographic Research Laboratory. Dr. C. E. Kenneth Mees.
The Work of the North Dakota Biological Research Station at Devil's Lake. Professor R. T. Young.
The Complexity of the Chemical Elements. Professor Frederick Soddy.
The Psychology of Conviction. Professor Joseph Jastrow.
Reptiles as Food. Professor A. M. Reese.
Entomological Research and Utility. Dr. E. P. Felt.
Potholes, Their Variety, Origin and Significance. E. D. Elston.
The Progress of Science:
Work of the Corps of Engineers of the Army; The National Association of Audubon Societies; The Causes of Death by Occupation; Scientific Items.
Index to Volume V.

CONTENTS OF THE JANUARY NUMBER

Modern Natural History Museums and Their Relation to Public Education. Dr. Barton W. Evermann.
Potholes, Their Variety, Origin and Significance. E. D. Elston.
The Influence of Magnetism on Light. Professor L. R. Ingersoll.
Dust in Industry. Dr. Henry Field Smyth.
The Banana, a Food of Exceptional Value. Professor Samuel C. Prescott.
Results and Expectations of Research on Fishery Problems. Dr. Philip H. Mitchell.
The Diagnosis of Potential Neurosis. Dr. John B. Morgan.
The Progress of Science:
The Pittsburgh Meeting of the American Association for the Advancement of Science; The Geological Work of President Charles R. Van Hise; The Coal Situation in the United States; Scientific Items.

 The MONTHLY will be sent to new subscribers for six months for One Dollar.

SUBSCRIPTION ORDER

To THE SCIENCE PRESS,

Publishers of THE SCIENTIFIC MONTHLY,

Sub-Station 84, New York City.

Please find enclosed check or money order for three dollars, subscription to THE SCIENTIFIC MONTHLY for one year, beginning February, 1918.

Name.....

Address.....

Single Number 30 Cents

Yearly Subscription \$3.00

THE SCIENCE PRESS

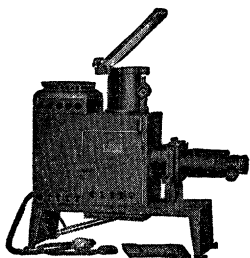
Lancaster, Pa.

Garrison, N. Y.

Sub-Station 84; New York

"The Perfect Stereopticon"

Bausch and Lomb Balopticon



WHAT greater help could the lecturer have than brilliant, interesting pictures, sharp and clear to the last detail? You'll get them with the Balopticon—unfailingly. For in this truly high-grade machine the gas-filled Mazda lamp and the accurate projection lens act in perfect harmony. Sturdily built and exceptionally simple to operate. If electricity is not available, we equip with acetylene burner or with 6-volt Mazda lamp for use on storage battery. Special portable outfits for travelers. Prices from \$31.50 up. Write for free circulars.

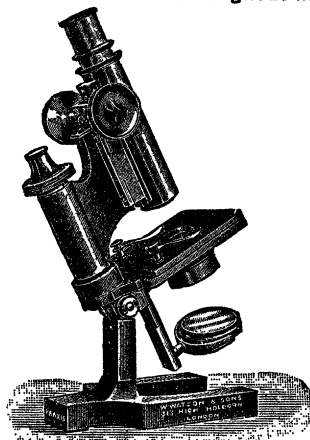
BAUSCH & LOMB OPTICAL CO.
408 St. Paul St., ROCHESTER, N. Y.
New York Washington Chicago San Francisco
Special terms to educational institutions.
Leading American Makers of Microscopes, Photographic and Ophthalmic Lenses, Projection Lanterns (Balopticons) Binoculars, and other High-Grade Optical Products

W. Watson & Sons, Ltd.

BRITISH MADE

STUDENTS MICROSCOPES

The "Praxis" Stand is the Student's model par excellence. Made throughout with the same accuracy



and finish as on Watson's highest priced Stands.

A few special points are:—Standardization so that additional movements may be fitted as required. Lever fine adjustment. Constructed of two solid castings and indestructible. All parts are slotted and sprung to compensate for wear.

Price for Stand only \$18.90.

Catalogue of Microscopes and Accessories for all purposes gratis on request from

W. WATSON & SONS, Ltd.

Established 1837

313, High Holborn, London, England

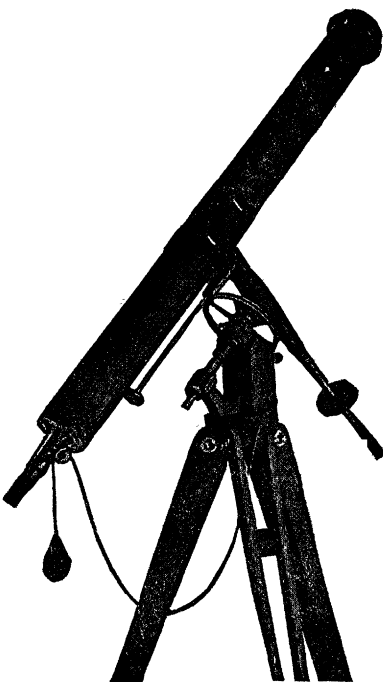


Illustration shows 5-in. with pneumatic clock

Refracting and Reflecting Astronomical Telescopes

Standard and Portable

Visual and Photographic
OBJECTIVES

Computed by our associate
Dr. F. R. MOULTON
(Chicago University)

OBSERVATORIES
Specula, Planes, Eyepieces, etc.

Photographs and Circulars on request

LOHMANN BROS.
GREENVILLE, OHIO :: :: :: U. S. A.